

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended) An imaging apparatus comprising:

an imaging device having a plurality of photoelectric transfer devices arranged in matrix-shape to detect a light irradiated to each photoelectric transfer device and transfer the light into an electric signal;

imaging means for imaging an image of a photogenic object on a surface of the imaging device, the imaging means imaging at least two images of the photogenic ~~subject~~ object onto different areas of the surface of the imaging device; and

electrical signal processing means for interleaving ~~electrically synthesizing~~ the at least two images of the photogenic object into one integrated image of the photogenic object.

Claim 2 (Previously Presented) The imaging apparatus of Claim 1, wherein the imaging means is composed of a plurality of lens systems having the same shape or refractive index and arranged in a plane parallel to a light-receiving surface of the imaging device.

Claim 3 (Previously Presented) The imaging apparatus of Claim 2, wherein a plurality of image formation lenses composing each lens system are formed integrally.

Claim 4 (Previously Presented) The imaging apparatus of Claim 2, wherein a plurality of image formation lenses composing each lens system are formed integrally of material having a linear expansion coefficient of not more than $1 \times 10^{-5} / ^\circ\text{C}$.

Claim 5 (Previously Presented) The imaging apparatus of Claim 2, wherein a plurality of image formation lenses composing each lens system are bonded on a substrate having a linear expansion coefficient of not more than $1 \times 10^{-5} / ^\circ\text{C}$.

Claim 6 (Previously Presented) The imaging apparatus according to Claim 1, wherein the imaging means includes a plurality of lens systems, and an optical center of each of the plurality of lens systems is aligned axially with a center of a corresponding one of the plurality of photoelectric transfer devices.

Claim 7 (Currently Amended) An imaging apparatus ~~including an imaging device,~~
~~the imaging device~~ comprising:

a plurality of photoelectric transfer devices arranged in matrix-shape to detect a light irradiated to each photoelectric transfer device and transfer the light into an electric signal;

a lens apparatus configured to direct an image of a subject onto a surface of the imaging device, the lens apparatus directing at least three images of the subject onto at least three different areas of the surface of the imaging device; and

an electric signal processor configured to interleave the at least three images of the subject to form an integrated image of the subject ~~from the at least three images of the subject.~~

Claim 8 (New) The imaging apparatus of Claim 1, wherein the electrical signal processing means interleaves pixels of corresponding position of the at least two images of the photogenic object.

Claim 9 (New) The imaging apparatus of Claim 7, wherein the electric signal processor is configured to interleave pixels of corresponding position of the at least three images of the subject.